

### **REMARKS**

Claims 1-24 and 44-45 are pending; claims 25-43 stand withdrawn. Applicants thank the Examiner for withdrawing the prior rejection of claims 1-24 and 44-45 under 35 U.S.C. § 112, second paragraph. Claims 1 and 44 are amended with this reply. Support for the amendments can be found throughout the specification, for example, at page 15 and the Figures. No new matter has been added.

#### **Priority**

The Examiner has indicated that the present application, with a filing date of April 8, 2004 is not entitled to priority for German Application No. DE 10149 684.2, filed October 9, 2001, because the present application was filed more than twelve months later. Applicants respectfully disagree.

The present application claims priority to International Application No. PCT/EP02/11313, which in turn claims priority to German Application No. DE 10149 684.2. International Application No. PCT/EP02/11313 has a filing date of October 9, 2002<sup>1</sup> (see, e.g., the specification at 1, and International Patent Publication No. WO03/031063), and so is entitled to priority to the prior German application. The present application claims priority to the German application via a priority chain including the PCT application. Because the present application was filed within 30 months of the earliest priority date claimed, it is entitled to a priority date of October 9, 2001.

A corrected Application Data Sheet, reflecting the correct filing date PCT/EP02/11313 of is being filed with this reply. Applicants respectfully ask that the Examiner acknowledge the claim of priority to German Application No. DE 10149 684.2, filed October 9, 2001.

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<sup>1</sup> It appears that publication date of WO03/031063, i.e., April 17, 2003, was mistakenly listed as the filing date of the PCT application. See the Application Data Sheet filed April 8, 2004.

**Rejections under 35 U.S.C. § 112, second paragraph**

Claims 44 and 45 have been rejected for indefiniteness under 35 U.S.C. § 112, second paragraph. In particular, the Examiner argues that the terms "may be" renders independent claim 44 indefinite. Claim 45 depends from claim 44. See the Office Action at 3.

Claim 44 has been amended so as to avoid the term "may be." Applicants believe independent claim 44 and dependent claim 45 fully comply with the requirements of § 112, second paragraph.

**Rejection under 35 U.S.C. § 103(a)**

Claims 1-24, and 44-45 have been rejected under 35 U.S.C. § 103(a) as being obvious over U.S. Patent Application Publication No. 2006/0160205 to Blackburn et al. ("Blackburn") in view of U.S. Patent Application Publication No. 2002/0150933 by Ehricht et al. ("Ehricht") and U.S. Patent No. 5,856,174 to Lipshutz et al. ("Lipshutz"). Office Action at 4. Applicants respectfully disagree. Claims 1 and 44 are independent.

Claim 1 relates to a device for holding a substance library carrier. **The device includes two holding elements that are fixable with each other, and that hold a layer composite** that includes: (i) **a lid element** having a detection surface with a substance library on its underneath side and being optically translucent at least in an area of the detection surface, (ii) **a sealing intermediate element having an enclosed recess**; and (iii) **a base element** being optically translucent at least in an area of the detection surface of the lid element. The lid element, the intermediate element and the base element are held together between the two fixed holding elements to form an optically translucent chamber having a chamber space. See claim 1.

Claim 44 relates to a first device for filling a second device for holding a substance library carrier. The second device includes two holding elements that are fixable with each other, and that hold a layer composite. The layer composite includes (i) a lid element having a detection surface with a substance library on its underneath side and being optically translucent at least in an area of the detection surface, (ii) **a sealing intermediate element** having an enclosed recess; and (iii) a base element being optically translucent at least in an area of the detection surface of the lid element. The lid element, the intermediate element and the base

element are held together between the two fixed holding elements to form an optically translucent chamber having a chamber space. See claim 44.

#### Blackburn

Blackburn relates generally to biochip multiplexing (abstract). The Examiner argues that Blackburn teaches at paragraph 0088 "inlet ports comprising a seal, and wherein the seal comprises a gasket, reading on a sealing intermediate." Office Action at 5.

The assertion that the "gasket" referred to at paragraph 0088 reads on the sealing intermediate of the instant claims is unsupported, and indeed, erroneous. The relevant portion of Blackburn explains that an "inlet port may optionally comprise a seal . . . (as depicted in FIG. 3C and 14B) the seal comprises a gasket, or valve through which a pipette or syringe can be pushed."

There is no indication that the gasket described by Blackburn has an enclosed recess. Nor does Blackburn describe a structural relationship among the gasket, a lid element, and a base element. Most critically, nothing in Blackburn teaches, suggests, or motivates a person of ordinary skill in the art to make a device including a layer composite that includes a lid element, a sealing intermediate element, and a base element, all held together between two fixed holding elements.

#### Ehricht

The Examiner argues that Ehricht "discloses two holding elements that are fixable with each other (for example, see figure 1 [sic, figure 2] wherein the 'two sides' of element 42 represent 'holding elements' and they are 'fixed' at a distance equal to the length of element 2.)" See the Office Action at page 7. Applicants respectfully disagree.

The Examiner misinterprets figures 1-2 of Ehricht. Ehricht does not disclose "two holding elements that are fixable with each other" as the Examiner asserts, but instead a **single** chamber body (element 1). See, e.g., paragraph 0055: "Device 20 . . . consists of a chamber body 1 . . . ." Figures 1 and 2 of Ehricht are reproduced below for reference.

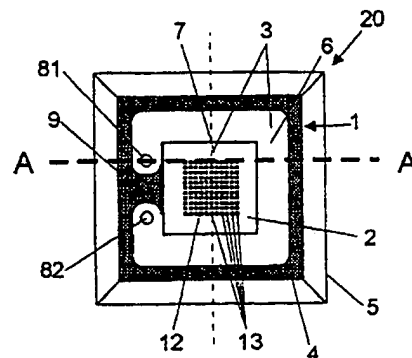


Fig. 1

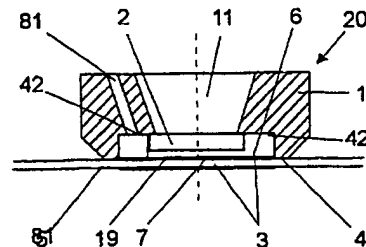


Fig. 2

Thus, Ehrict does not teach **two** holding elements that are fixable with each other.

According to the Examiner, Ehrict does teach such an element, specifically "a chamber body and chamber support wherein the chamber body is provided with a bearing surface via which chamber body is in a sealing connection with chamber support, so that a sample chamber is formed." Office Action at 7. Applicants respectfully disagree that the description of a chamber body "in a sealing connection" with a chamber support can reasonably be interpreted as teaching a sealing intermediate element having an enclosed recess.

Ehriect describe a device having two elements (i.e., a chamber body and a chamber support) in a sealing connection with one another. There is no third, intermediate element. Rather, the sealing connection is "by means of an adhesive connection or weld connection" (Ehriect at 4, paragraph 0055).

The present claims, however, recite a device having **three** elements: (i) a lid element; (ii) a sealing intermediate element; and (iii) a base element. For example, compare FIGS. 2 and 5 of Ehriect (showing chamber body 1 and chamber support 5) with FIG. 2 of the present application (showing lid element 200, sealing intermediate element 300, and base element 400, as well as holding elements 101 and 102; see the specification, e.g., at 6, paragraph 0029). The

specification describes that in one embodiment, the device includes a "layered reaction chamber 500 consisting of the base element 400, the intermediate element 300, and the lid element 200 . . . mounted in the holding elements 101 and 102 that may be engaged with one another." Specification at 15, paragraph 0058.

Moreover, the present claims relate to a device in which the **three** elements that together form an optically translucent chamber having a chamber space are themselves **are held together between two fixed holding elements**. As discussed above, the Examiner's characterization of Ehrict does not support the conclusion that Ehrict teaches two fixed holding elements between which the lid element, the intermediate element and the base element are held. Ehricht does not teach the elements of claims 1 and 44; more particularly, **Ehrict does not teach the elements for which it is cited**.

#### Lipshutz

The Examiner argues that Lipshutz "teaches in **column 19, lines 20-29** . . . use of an oligonucleotide array (substance library carrier as the bottom surface of a chamber," and "[i]n **column 27, lines 1-3** . . . that the base unit [may] include a second surface which contacts the opposite surface of the device." (emphasis added) (Office Action at 11-12). It is not clear that Lipshutz is describing a single device in these passages selected from disparate portions of the disclosure. Nevertheless, neither the passages mentioned above, nor any other part of Lipshutz, describes a device including two holding elements that are fixable with each other, and that form a layer composite that includes **a sealing intermediate element having an enclosed recess**.

The references, individually or when combined, fail to teach all the elements of claims 1 and 44. Nothing in the references provides a teaching, suggestion, or motivation to supply the missing elements, nor does common sense or skill in the art supply what the references lack.

The Supreme Court has explained that to facilitate review of a determination of obviousness, the analysis of "interrelated teachings of multiple patents; the effects of demands known to the design community or present in the marketplace; and the background knowledge possessed by a person having ordinary skill in the art. . . should be made explicit." *KSR*

*International Co. v. Teleflex Inc.* 550 U.S. \_\_\_\_ (2007) (slip op. at 14) (citing *In re Kahn*, 441 F. 3d 977, 988 (CA Fed. 2006) ("[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness ")).


Here, the Examiner has failed to make any reasoning behind the combination of Blackburn, Ehriect, and Lipshutz. For, example, there is no explanation of how the teachings of the references are "interrelated," only a laundry list of features (supposedly) taught by each reference. As Applicants have detailed above, the references do not even stand for the teachings that the Examiner has assigned to them. Even if one accepts that such teachings can be found in the art of record (which Applicants do not), there is no reason to combine the various teachings in a way that would lead a person of ordinary skill to the devices of claims 1 or 44 or the claims that depend from them. In short, the Examiner has failed to make a *prima facie* case of obviousness. Applicants therefore respectfully ask that the rejection under § 103 be reconsidered and withdrawn.

#### CONCLUSION

Applicants ask that all claims be allowed. A petition for a three-month extension of time and the required fee are filed with this reply. Please apply any other charges or credits to deposit account 19-4293.

Respectfully submitted,

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